

Raytheon Technical Services Company
Systems Monitoring Center
ECS WORK INSTRUCTION

Subject: Development and Control of SMC Configuration Items

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STATUS New Document

SCOPE This procedure applies to Systems Monitoring Center personnel.

PURPOSE

To establish a mechanism to configuration control all items directed by the Systems Monitoring and Coordination (SMC) Center. The SMC system, under the direction of the SMC CCB, is required to perform configuration management (CM) of configuration items (CIs) under SMC purview, not covered under other CM. These CIs, when installed to the SMC Network, must be controlled as directed by the M&O Configuration Management Plan and the Sciences Systems Program Configuration Management Board Configuration Management Plan. The procedures contained in this instruction meet these regulatory requirements.

PROCESS

- 1 CCR is submitted to the SMC to CM an SMC maintained CI.
- 2 SMC CCB approves the CCR and assigns it to the Responsible Engineer.
- 3 The Responsible Engineer puts together the appropriate package. This package should include any/all materials related to the resolution of the initial request. The package will include the CI. This CI can be, but is not limited to: documentation, SQL scripts, UNIX scripts, floor plans, etc.
- 4 Responsible Engineer annotates the CCR and notifies the CM Administrator of the packages location.
- 5 The CM Administrator reviews the package for completeness. If the package is lacking detail (i.e. README file for a script) the CM Administrator will return the package to the responsible engineer. If the package is complete the process will proceed.
- 6 The CM Administrator places the configuration item into a secure directory, generates a tape and documents the existence of the new configuration item. This directory can only be written to by the CM Administrator.
- 7 If this configuration item is to be made available to each of the sites, a link to the secure directory is placed on the SMC web site enabling the CI to be downloaded by the proper parties. A mail message is distributed to the intended parties notifying them of the availability of the CI and the location to find it.
- 8 The CM Administrator closes the CCR.

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INSTRUCTION

- 1 A CCR has been generate that requires the maintenance and control of a CI by the SMC CCB.
- 2 The CCR is assigned by the SMC CCB to the responsible engineer(s).
- 3 The responsible engineer(s) put together the package that contains the CI and any related materials. The engineer(s) delivers the package to the CM Administartor.
- 4 The CM Administrator review the package for completeness. In the event that there is an error with the package, the CM Administrator will return the package to the responsible engineer. If the package is deemed complete, the CM Administrator will:
 - 4.1 create a sub-directory in the lockdown directory in which to place the files,
 - 4.2 change directory to the developer's directory (file path) and perform checksum against each file in the script package,
 - 4.3 ftp the files to the lockdown directory,
 - 4.4 perform another checksum on each file that was moved tot he lockdown directory,
 - 4.5 compare second checksum with first. When the checksums match exactly, copy the checksum to a file in the same subdirectory as the files, and with the extension ".sum",
 - 4.6 prepare change package for the CCB review, electronic when possible, and is composed of:
 - 4.6.1 the change request, as annotated by the responsible engineer,
 - 4.6.2 the CI,
 - 4.6.3 documentation and installation instructions, and
 - 4.6.4 any additional 'release notes' provided by the developer.
 - 4.7 notify the CCB that the files are under configuration control and the change request package is ready for review.

From this point forward, the files are locked in the cmadmin directory. Only the CMA or those assigned to the group "CM" shall have write access to the files. The CMA shall ensure that, at a minimum, the current approved version of the file set is available in the lockdown directory, along with the two most recent consecutive versions. Controlled files older that this minimum shall be copied to magnetic media and stored for eventual access, as required.
- 5 CCB Approves and Directs Disposition - The CCB convenes and reviews the change package. Simultaneously with approval, the CCB directs disposition of the change package, and closure of the change request.
- 6 CMA closes the change request - The CMA accesses the TTS and changes the status of the change request to closed.
- 7 Configuration Management Distributes - If the CI is determined to be of interest beyond the SMC, the SMC CM Administrator posts the CI to the appropriate location on the SMC Web site (<http://m0mss01.ecs.nasa.gov/smc>). This

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determination is made by the SMC CCB. The Web site will contain information about the CI, how the site CM Administrators can obtain a copy and who at the SMC they should contact about CM or technical issues. If appropriate, it will be made downloadable from the controlled location via the SMC Web site. The SMC CM Administrator then notifies, via email or email and phone, the site CM Administrators of the availability of the CI. This notification will include a general description of the CI and how the sites can obtain a copy of the CI.